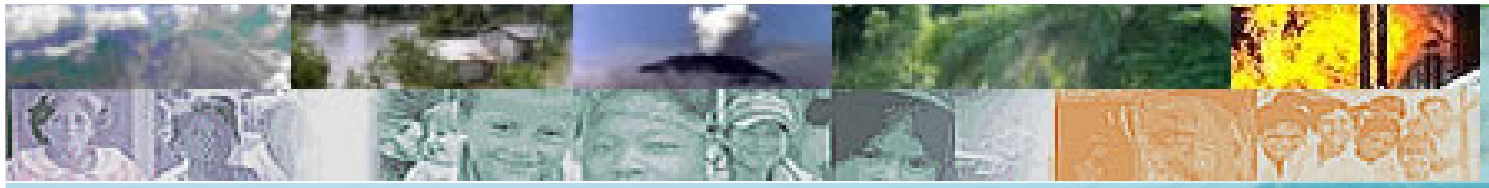


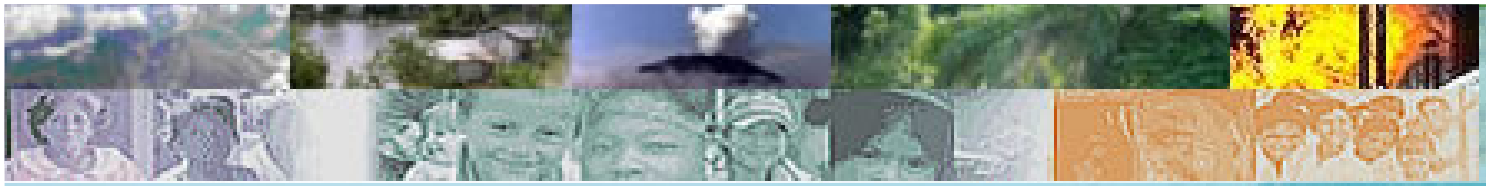
# PAHO Strategy for Strengthening Epidemiological Capacity in Health Systems & Services

Dr. Jarbas Barbosa, Manager

Health Surveillance, Disease Prevention and Control

Pan American Health Organization

Regional Office of the World Health Organization



# the political scenario of population health

WIDENING DISPARITIES
RISING EXCLUSION

Bipolar world
Cold War
Capitalism vs Socialism
Anti-colonialist movement
Third World
Multilateralism

Unipolar world
War on terrorism
Capitalism hegemony
Globalization
Unilateralism
Human insecurity & vulnerability

GLOBALIZATION
& New Economic Order

DEMOCRATIZATION
& decentralization

Economic & State Reforms
Health Sector Reforms

Welfare State &
Social Security Crisis

MDG

HFA

1975 1990 2000 2015

DEMOGRAPHIC TRANSITION: population growth, urbanization, population ageing

EPIDEMIOLOGIC POLARIZATION: opposite risk & disease profiles coexistence

ENVIRONMENTAL & ECOLOGIC overburdening impact

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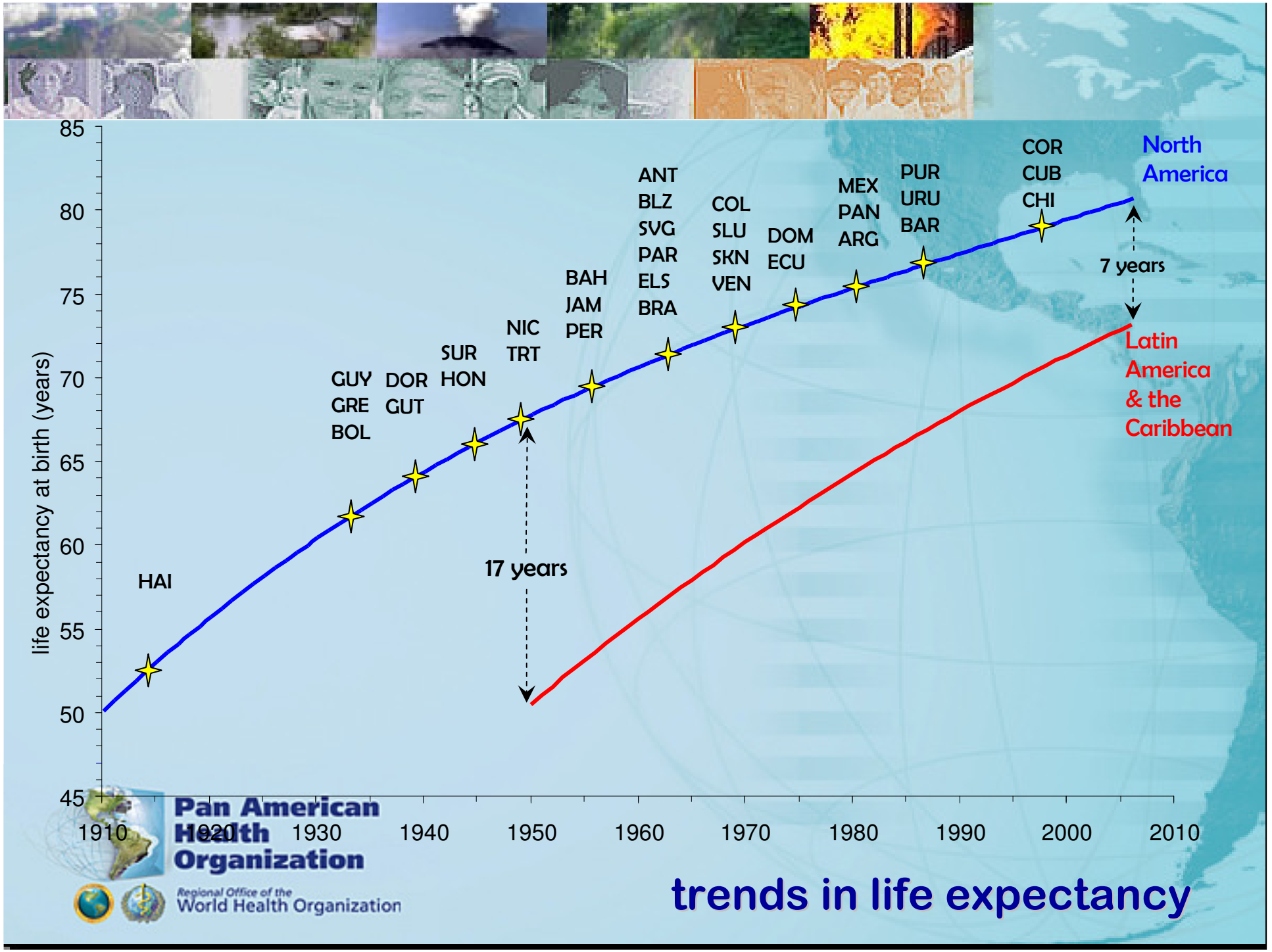
85
80
75
70
65
60
55
50
45
life expectancy at birth (years)
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
HAI
GUY
GRE
BOL
DOR
GUT
SUR
HON
NIC
TRT
BAH
JAM
PER
ANT
BLZ
SVG
PAR
ELS
BRA
COL
SLU
SKN
VEN
DOM
ECU
MEX
PAN
ARG
PUR
URU
BAR
COR
CUB
CHI
North America
Latin America & the Caribbean
17 years
7 years
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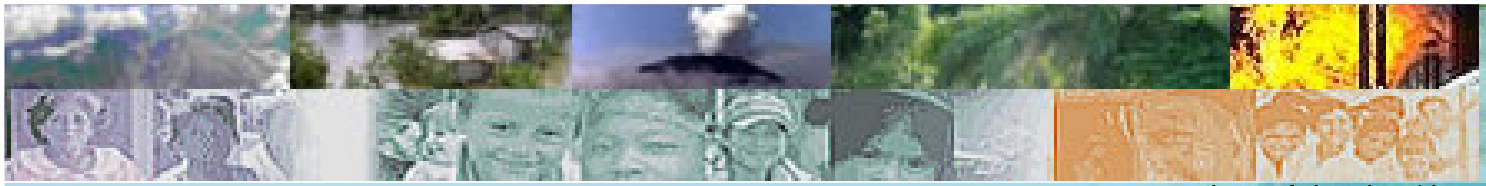
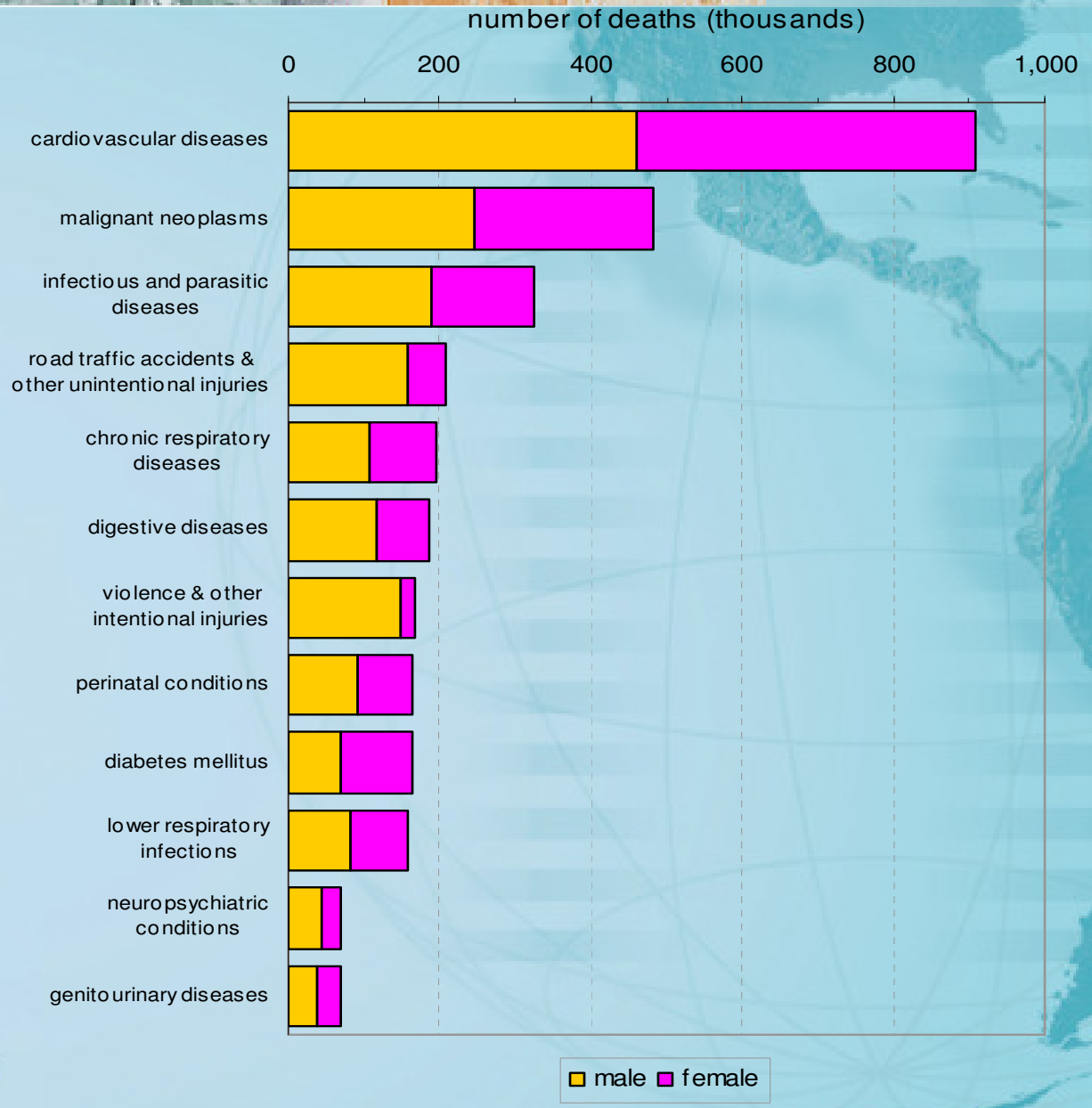
trends in life expectancy



# The epidemiological picture in the Americas 2005:

# disease profile

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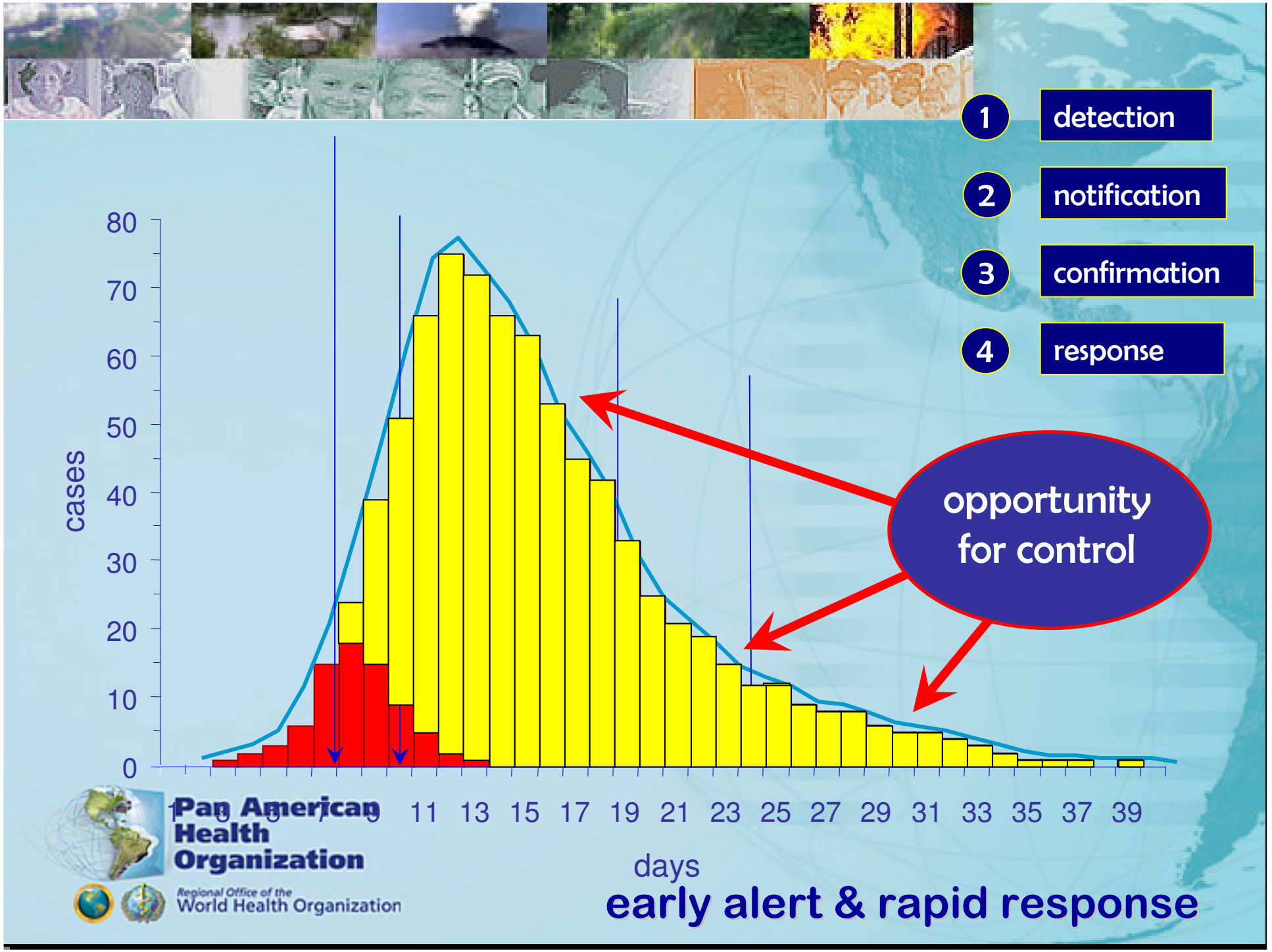
1 detection
2 notification
3 confirmation
4 response
opportunity for control
cases
0
10
20
30
40
50
60
70
80
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39
days
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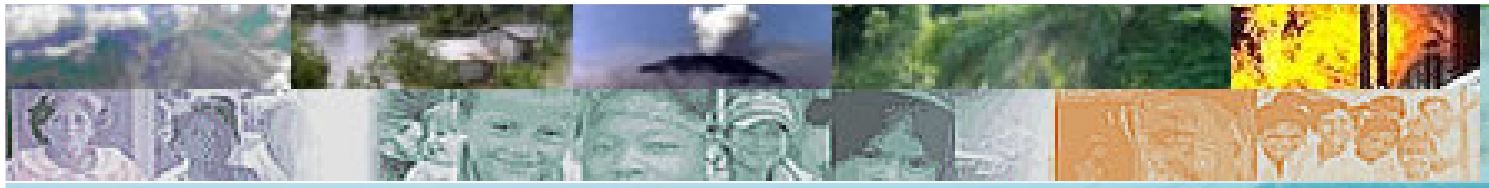
early alert & rapid response



# regional context and new challenges for epidemiology

- the *Buenos Aires Seminar* on Uses of Epidemiology (1983)
- epidemiology and the Essential Public Health Functions (EPHF)
- epidemiology role in Health Sector Reform processes
- The Health Agenda for the Americas 2008-2017
- PAHO Strategic Plan 2008-2013

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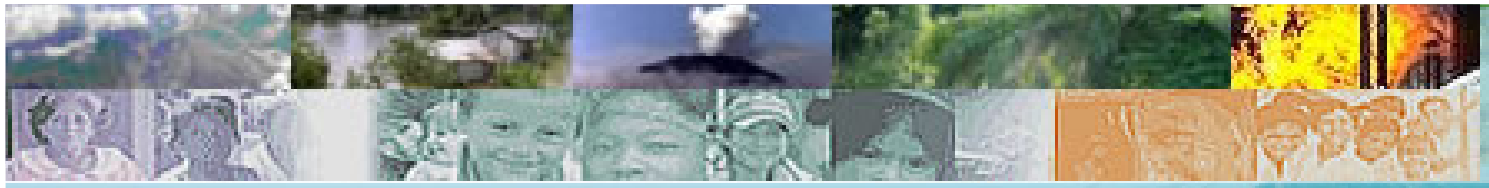

# Seminar on Uses & Perspectives of Epidemiology (Buenos Aires, 1983)

- health situation studies & analyses
- epidemiologic surveillance of diseases and other health problems
- causal, etiological epidemiologic research
- impact assessment of health policies & programs

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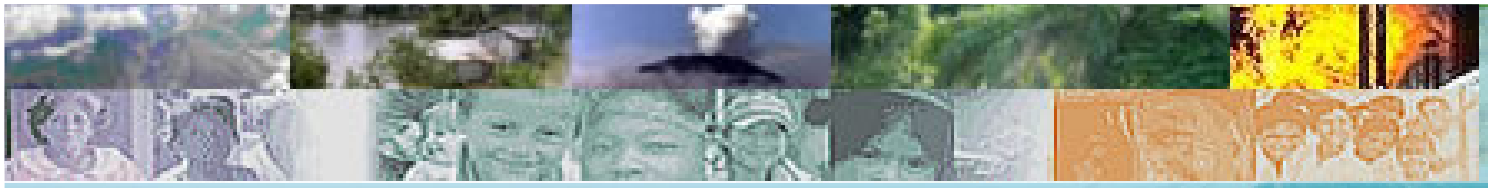

# Essential Public Health Functions

- health situation monitoring
- public health surveillance & risk control
- human resources development
- emergencies & disasters response
- policy development & managerial capacity
- health regulation & enforcement
- health promotion
- innovative public health solutions
- quality of services
- equitable access
- intersectoral action for health
- social participation & empowerment

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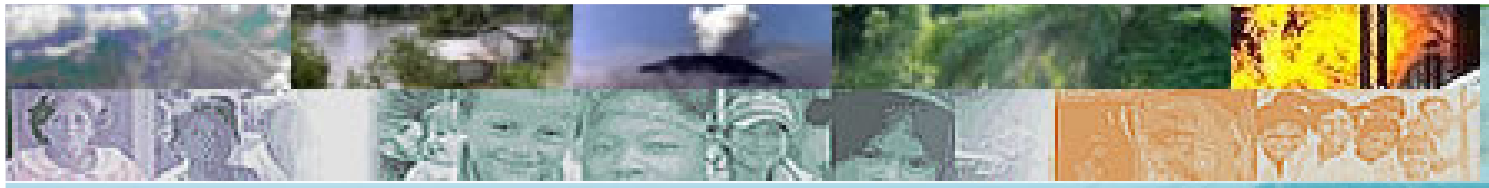

# Health Sector Reform processes

- political and administrative decentralization
- re-definition of sectoral functions, both in individual health care and disease control programs, at national, subnational, and local levels
- structural changes in provision, regulation, and financing of health services and programs
- multiplicity of health providers (segmentation & fragmentation)
- expansion of coverage and/or affiliation
- Primary Health Care renewal & strengthening

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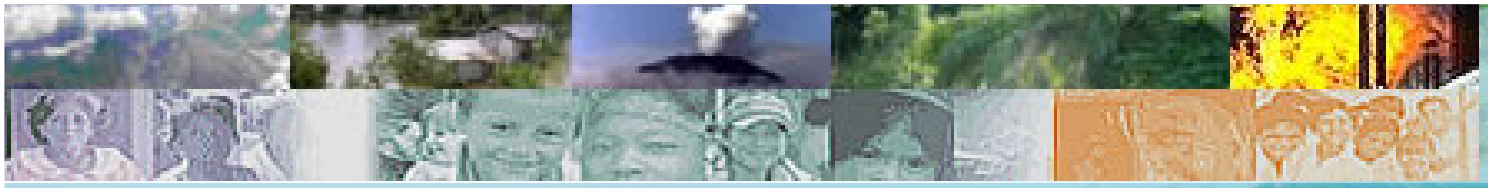

# Health Agenda for the Americas 2008-2017
## Areas of Action

- reinforcing the National Health Authority
- encompassing health determinants
- increasing social protection & quality access to healthcare
- decreasing health disparities among & within countries
- reducing health risks & burden of disease
- strengthening public health workforce management & development
- benefiting from knowledge, science, & technology
- protecting sanitary security

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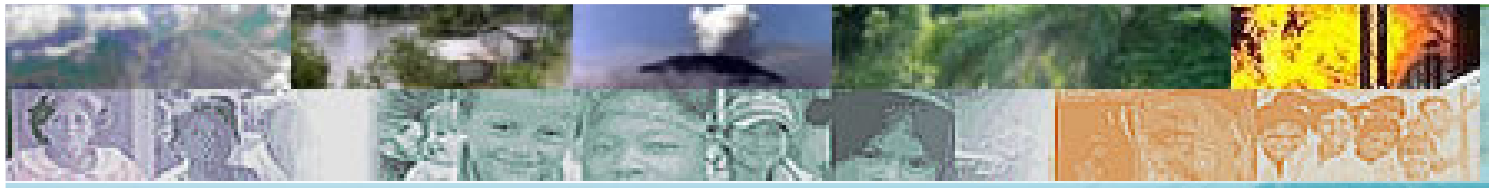

# PAHO Strategic Plan 2008-2013

## reducing health risks & burden of disease

- SO1: reduce communicable diseases health, social & economic burden
- SO2: combat HIV/AIDS, tuberculosis & malaria infections
- SO3: prevent & reduce morbidity, disability, & premature mortality due to chronic, non-communicable diseases, injuries & violence
- SO4: reduce morbidity & mortality in key life-course stages; improve sexual & reproductive health, & promote healthy aging
- SO5: mitigate social & health consequences of disasters & emergencies
- SO6: promote health & development and reduce health risk factors

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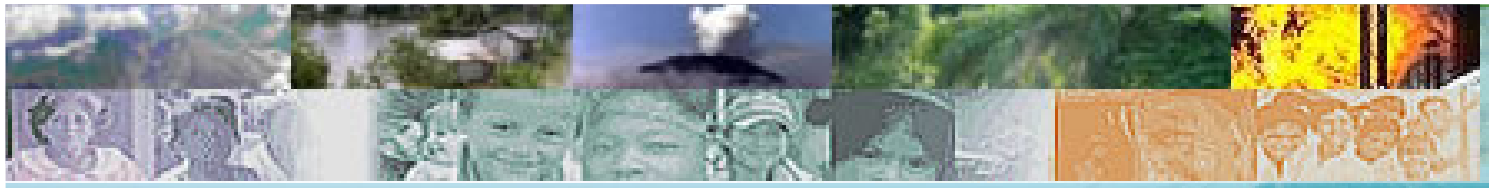

## practice of epidemiology in health services systems

## epidemiological surveillance

- outbreak early detection & rapid response
- new, emergent, & re-emergent diseases
- International Health Regulations (2005) core capacities
- chronic, non-communicable diseases and risk factors
- environmental health & risk factors
- surveillance & programs
- surveillance & services

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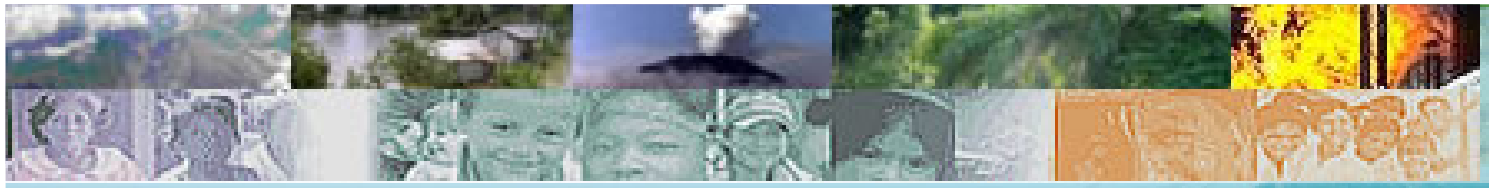

## practice of epidemiology in health services systems

## health situation analyses

- population health situation assessment
- health priority setting, and health policy & programs setting
- monitoring of social disparities in health
- population health impact assessment
- epidemiology role in health regulation
- integration of new epidemiologic knowledge from causal and applied research into the public health practice

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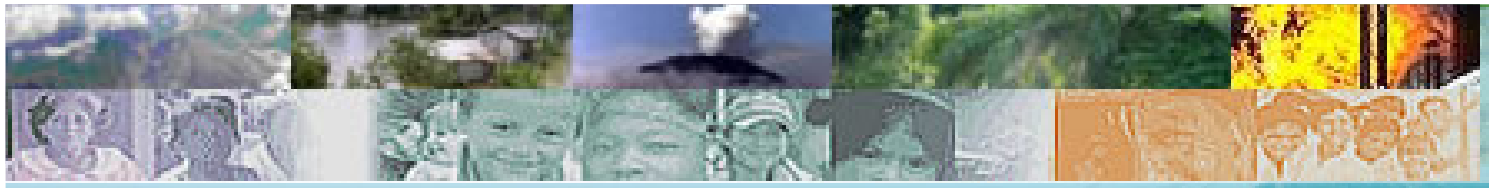

# four inputs to a regional strategy

- regional Delphi-like consultation on epidemiological core competencies (November 2007-February 2008)
- regional workshop on permanent education in applied epidemiology (Mexico; February 2008)
- Expert Group meeting on practice of epidemiology in health services (Washington DC; July 2008)
- bibliographic search on epidemiological research trends in Latin America and the Caribbean (BIREME; July 2008)

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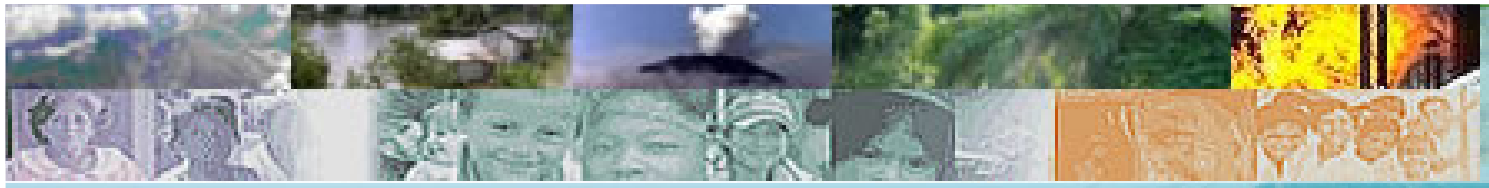

# competencies in applied epidemiology
## current status of consultation

- 13 Latin American and Caribbean countries
- 12 practice categories
- core, interphase and related-fields competencies
- development of country and public health system considered
- infrastructure and cooperation potential also assessed

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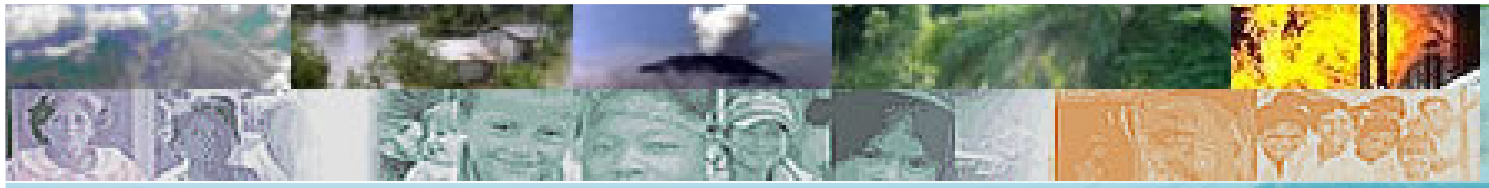

# in-service training in applied epidemiology
## main policy guidelines

- adopt a pyramidal approach to health workforce training
- examine relevant modular training series available (MOPECE)
- expand virtual distance learning in epidemiology
- use competencies profile as a bridge for education and service development
- promote academia/MoH alliances at national level
- promote and support specialized training FETP-like

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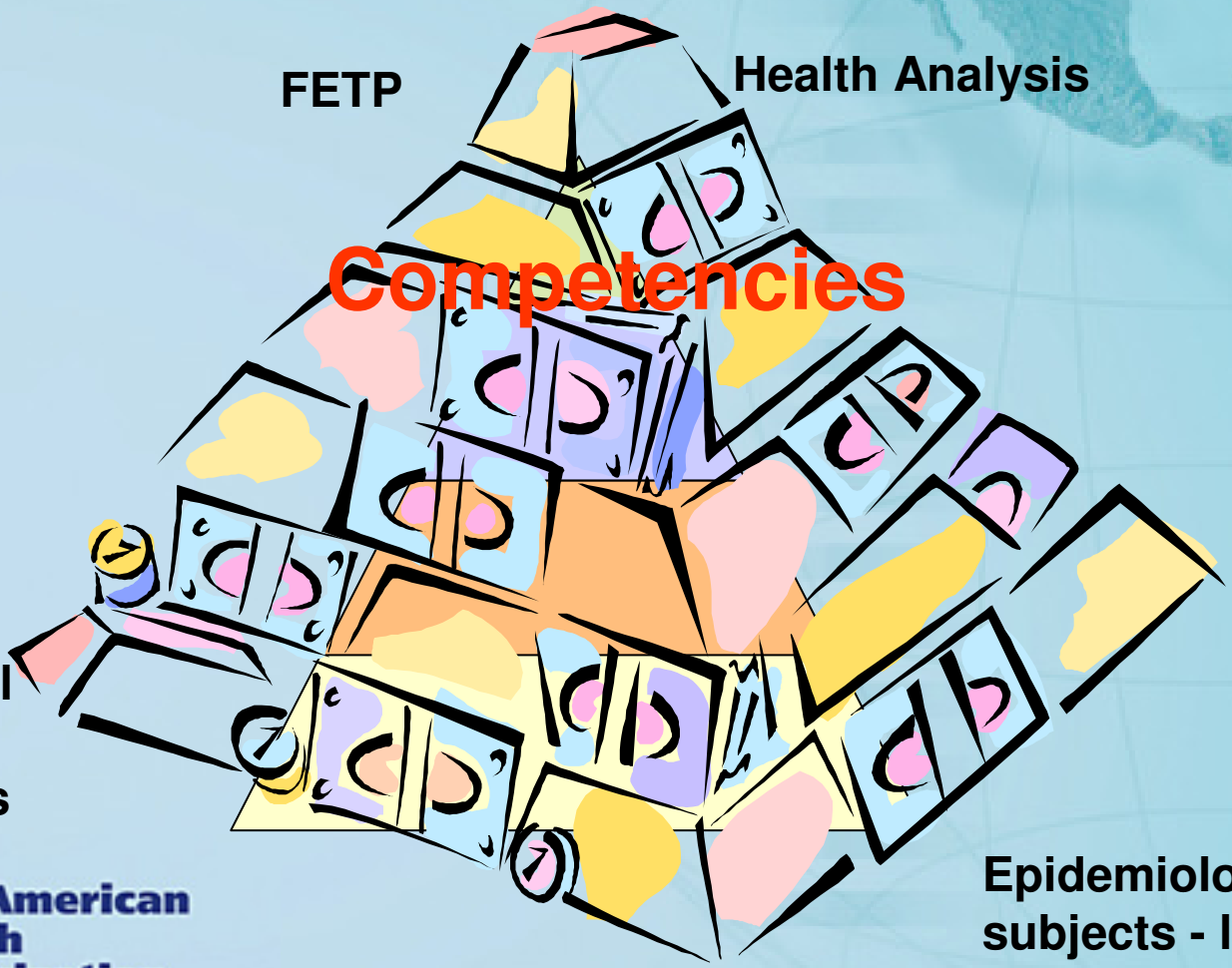
# Pyramidal approach

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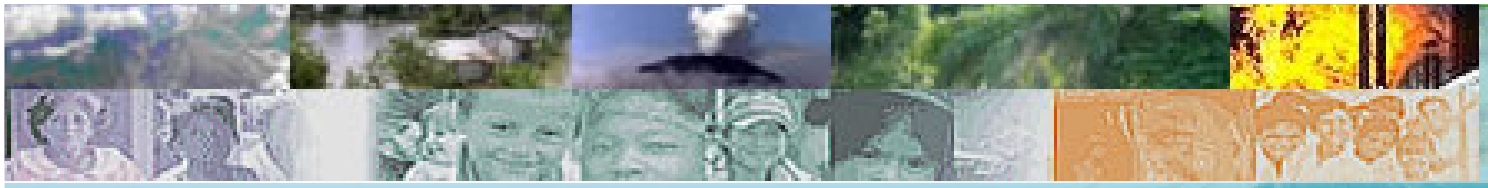
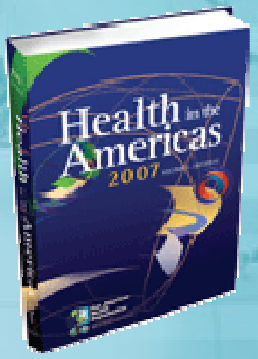
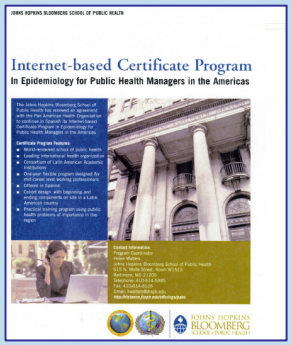


# Technical cooperation - training

**Health Analysis - USF**




**Epidemiology for Public Health Managers - UJH**

**Measuring Health Disparities - UM**

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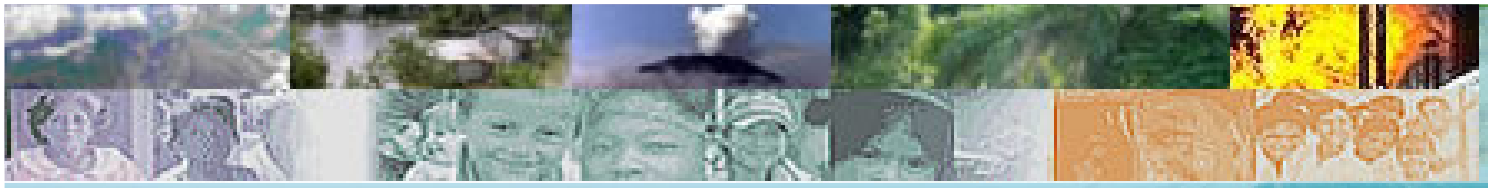
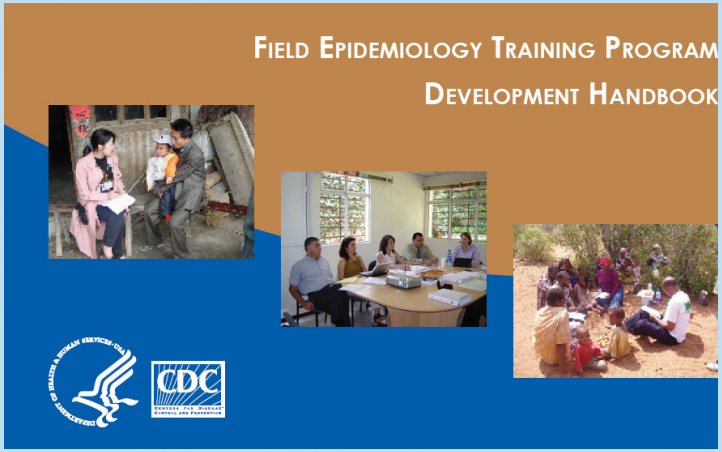


# Technical cooperation - training

**MOPECE**




**Competencies and FETP - CDC**

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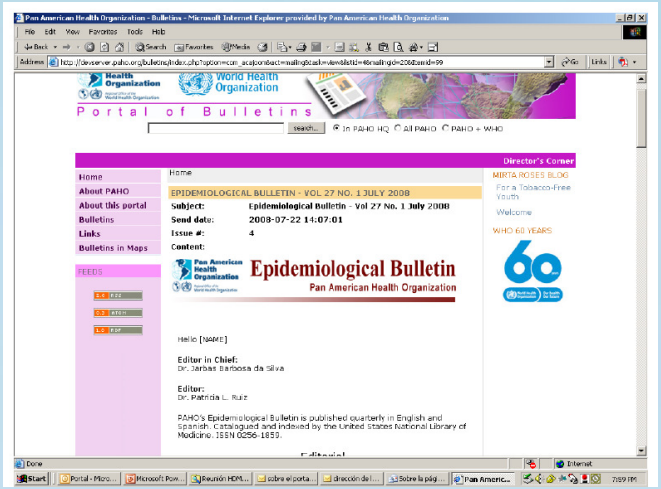
# Technical cooperation – information and knowledge




**Epidemiological Bulletin – Epi webpage**

**Virtual campus OPS**

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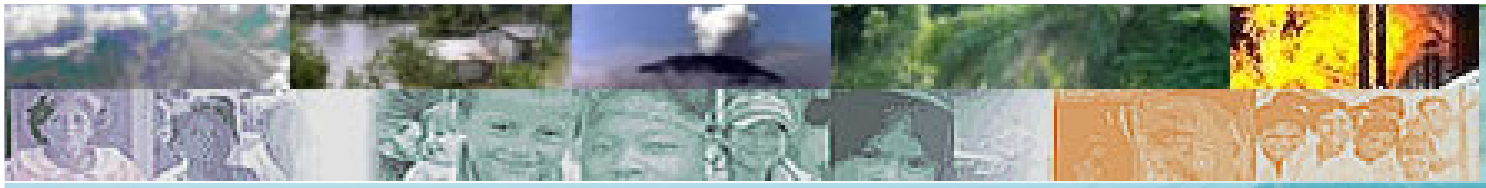
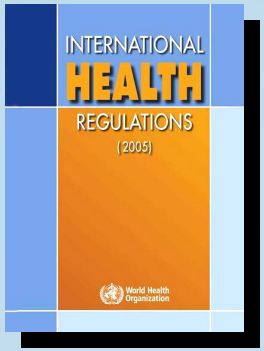


# Technical cooperation – epidemic alert and response (IHR 2005)




**Core capacities assessment**

**Rapid response teams**

**Strategic Health Operations Center**

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# Technical cooperation – new challenges NCD

**Regional Plan on Non Communicable Diseases**

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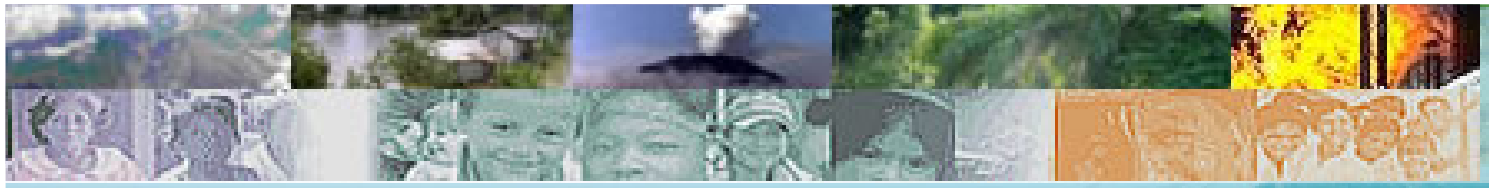

# practice of applied epidemiology in health services
## main policy guidelines

- surveillance as *the* core epidemiological practice in health services & programs
- integration of surveillance in programs & services
- redefinition of surveillance's aims, contents & scope
- surveillance in the context of Primary Health Care
- use core epidemiologic competencies profile as a bridge for education and service development

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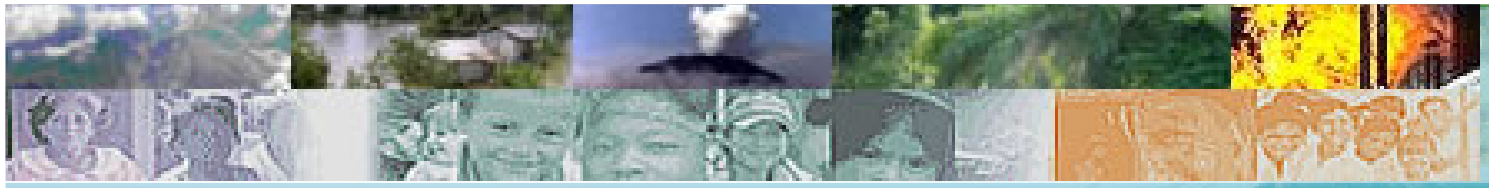

# toward a regional strategy for strengthening the practice of epidemiology in health services systems

- define current needs & demands for epidemiology in health services
- set epidemiological core competencies by operational levels & functions
- put in motion training initiatives to match needs with competencies
- promote the definition of an applied epidemiological research agenda and support incorporation of new knowledge into public health practice

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Thank you!

barbosja@paho.org